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FOGG AND ASSOCIATES, LLC			WANG, TED M	
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2634

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Please find below and/or attached an Office communication concerning this application or proceeding.



## Office Action Summary

Application No.

10/007,775

Applicant(s)

OLIVER ET AL.

Examiner

Ted M. Wang

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-66 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-66 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04/01/2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>11/17/03</u>  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Objections*

1. Claim 49 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 3. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).
2. Claim 58 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 33. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).
3. Claims 29, 30, and 48 are objected to because of the following informalities:
  - With regard claims 29 and 30, line 1, change "The method" to --- The machine-usable medium ---, respectively.
  - With regard claim 48, line 1, delete "A'" before "In", line 3, insert --- the method --- before "comprising".

Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 20 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

□ With regard claim 20, the limitation of "sum of the data transceiving bandwidth of the first and the second dataports is equal to the data transceiving bandwidth of the G.SHDSL interface" as recited in lines 1-3, has not been taught in the specification. The specification only taught "The aggregate datastream may be composed of both E1 and dataport user data where aggregate data bandwidth is allocated in multiples of 64 Kbps. This permits an entire 32 time slot E1 data stream and a 256 Kbps data port stream to be transmitted over one pair of wires at the maximum G.SHDSL data rate" as recited in paragraph 29.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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7. Claims 1, 2, 5-8, 11-13, 31, 32, 35-38, 41, and 48 are rejected under 35

U.S.C. 102(e) as being anticipated by Parrish (US 6,631,483).

- With regard claim 1, Parrish discloses a method of operating a telecommunications device with a plurality of dataports, comprising:
  - selecting a master clock signal from at least one clock source (Fig.4 element 52a and 52b and 74, column 2 lines 40-58, and column 6 lines 31-60, and column 8 lines 45-63);
  - generating a synchronized reference clock signal from the master clock signal (Fig.4 element 84 output 8 MHz, and 58a and column 9 lines 6-53);
  - dividing the synchronized reference clock signal to generate at least one synchronized derivative clock signal (Fig.4 element 58a), where examiner considers that the 8 MHz clock signal is divided by 1 (Fig.1 element 88);
  - coupling each at least one synchronized derivative clock signal to one or more of the plurality of dataports (Fig.2-4 elements 58a SYS A, 12, and 14, column 4 lines 9-41); and
  - transceiving data synchronized to the master clock signal on each of the plurality of dataports (column 4 line 9 – column 6 line 30).
- With regard claim 2, Parrish further discloses at least one of the plurality of dataports is a synchronous dataport (column 4 line 9 – column 6 line 30).
- With regard claim 5, Parrish further discloses wherein dividing the synchronized reference clock signal to generate at least one synchronized derivative clock signal further comprises dividing the synchronized reference clock signal by an

integer value N to generate at least one synchronized derivative clock (Fig.4 element 58a), where examiner considers that the N equals 1 (Fig.1 element 88).

- With regard claim 6, all limitation is contained in claim 5. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 7, Parrish further discloses wherein dividing the synchronized reference clock signal to generate at least one synchronized derivative clock signal further comprises generating each at least one synchronized derivative clock signal as a multiple of 64 kHz (Fig.4 element 58a, where 8 MHz is a multiple of 64 KHz).
- With regard claim 8, Parrish further discloses coupling the transceived synchronized data from the plurality of dataports to and from an external network dataport (Fig.2-4 elements 58a SYS A, 12, and 14, and column 4 line 9 – column 6 line 30)
- With regard claim 11, all limitation is contained in claim 1. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 12, all limitation is contained in claim 1. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 13, all limitation is contained in claim 1. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 31, which is a communication device claim related to claim 1, all limitation is contained in claim 1. The explanation of all the limitation is already addressed in the above paragraph.

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- With regard claim 32, which is a communication device claim related to claim 1, all limitation is contained in claim 1. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 35, which is a communication device claim related to claim 5, all limitation is contained in claim 5. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 36, which is a communication device claim related to claim 6, all limitation is contained in claim 6. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 37, which is a communication device claim related to claim 7, all limitation is contained in claim 7. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 38, which is a communication device claim related to claim 8, all limitation is contained in claim 8. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 41, which is a telecommunication device claim related to claim 12, all limitation is contained in claim 12. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 48, which is a method claim related to claim 1, all limitation is contained in claim 1. The explanation of all the limitation is already addressed in the above paragraph.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 3, 9, 10, 33, 39, 40, 49, 50, 52-59, and 61-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parrish (US 6,631,483) in view of Shenoi (US 2003/0048802).

- With regard claim 3, Parrish discloses all of the subject matter as described in the above paragraph except for specifically teaching wherein the telecommunications device is a G.SHDSL compatible device.

However, Shenoi teaches that the telecommunications device is a G.SHDSL compatible device (Fig.5 element 540 and paragraphs 12, 13, 37-39, 44, and 45). It is desirable that the telecommunications device is a G.SHDSL compatible device. The reason for this is deploying G.shdsl in backhaul applications can be cost effective and advantageous for at least the following reasons. This permits DSL components, such as DSLAMs, to be utilized without the need to install, or lease, expensive DSL interconnections between a DSL component and a central office so as to improve quality and/or reduces costs compared to previous approaches (paragraph 125). Therefore, It would have been obvious to one of



ordinary skill in the art at the time of the invention was made to include the method as taught by Shenoi in which, the telecommunications device is a G.SHDSL compatible device, into Parrish's communication device circuit so as to improve quality and reduces costs.

- With regard claim 9, all limitation is contained in claim 3 and 8. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 10, Parrish discloses all of the subject matter as described in the above paragraph except for specifically teaching wherein a total of the data transceiving capability per unit of time of the plurality of dataports matches a data transceiving capability per unit of time of the external network dataport.

However, Shenoi teaches wherein a total of the data transceiving capability per unit of time of the plurality of dataports matches a data transceiving capability per unit of time of the external network dataport. (Fig.2 and Fig.5, and paragraphs 35, 36, and 43-55).

It is desirable that wherein a total of the data transceiving capability per unit of time of the plurality of dataports matches a data transceiving capability per unit of time of the external network dataport in order to avoid cell loss (paragraph 54).

Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the method as taught by Shenoi in which, a total of the data transceiving capability per unit of time of the plurality of dataports matches a data transceiving capability per unit of time of the external network dataport, into Parrish's communication device so as to avoid cell loss.

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- With regard claim 33, which is a communication device claim related to claim 3, all limitation is contained in claim 3. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 39, which is a communication device claim related to claim 9, all limitation is contained in claim 9. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 40, which is a communication device claim related to claim 10, all limitation is contained in claim 10. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 49, which is a method claim related to claim 3, all limitation is contained in claim 3. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 50, Parrish further discloses at least one of the plurality of dataports is a synchronous dataport (column 4 line 9 – column 6 line 30).
- With regard claim 52, which is method claim related to claims 5 and 49, all limitation is contained in claims 5 and 49. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 53, which is a method claim related to claims 52 and 6, all limitation is contained in claims 52 and 6. The explanation of all the limitation is already addressed in the above paragraph.

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- With regard claim 54, which is a method claim related to claims 49 and 7, all limitation is contained in claims 49 and 7. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 55, which is a method claim related to claims 49 and 8, all limitation is contained in claims 49 and 8. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 56, which is a method claim related to claims 55 and 9, all limitation is contained in claims 55 and 9. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 57, which is a method claim related to claims 55 and 10, all limitation is contained in claims 55 and 10. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 58, which is a G.SHDSL communication device claim related to claim 33, all limitation is contained in claim 33. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 59, which is a G.SHDSL communication device claim related to claim 33, all limitation is contained in claim 33. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 61, which is a G.SHDSL communication device claim related to claims 58 and 35, all limitation is contained in claims 58 and 35. The explanation of all the limitation is already addressed in the above paragraph.

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- With regard claim 62, which is a G.SHDSL communication device claim related to claims 61 and 36, all limitation is contained in claims 61 and 36. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 63, which is a G.SHDSL communication device claim related to claims 58 and 37, all limitation is contained in claims 58 and 37. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 64, which is a G.SHDSL communication device claim related to claims 58 and 38, all limitation is contained in claims 58 and 38. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 65, which is a G.SHDSL communication device claim related to claims 64 and 39, all limitation is contained in claims 64 and 39. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 66, which is a G.SHDSL communication device claim related to claims 64 and 40, all limitation is contained in claims 64 and 40. The explanation of all the limitation is already addressed in the above paragraph.

10. Claims 4 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parrish (US 6,631,483) in view of Pitsoulakis (2003/0035471) and Lanode Ltd. (RS232 interface converters, RS232 to V.35 Interface converter).

- With regard claim 4, Parrish further discloses an E1 interface (column 4 lines 9-41).

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Parrish discloses all of the subject matter as described in the above paragraph except for specifically teaching a G.SHDSL, a RS-232 interface, and a V.35 interface.

However, Pitsoulakis teaches that a G.SHDSL (paragraphs 57 and 75), and a RS-232 interface (Fig.9 element 922) for a transmission device (Fig.9).

It is desirable to have a G.SHDSL interface and a RS-232 interface in order to reduce the design complicity due to non-standard interface. Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the apparatus/method as taught by Palm in which, having a G.SHDSL, and a RS-232 interface, for a transmission device, into Parrish so as to reduce the design complicity due to non-standard interface.

Parrish and Pitsoulakis disclose all of the subject matter as described in the above paragraph except for specifically teaching a V.35 interface. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to use a RS232 to V.35 Interface converter at RS232 interface port as shown by Lanode Ltd. (RS232 interface converters, RS232 to V.35 Interface converter) in order to communicate with other V.35 interface transmission device since it was known in the art that reduce the device design complicity and device cost.

In addition, the design of the interface of the dataports in a communication device, in general, is base on the needs by a customer or market or other reasons. For example, it could be E1 only, E1 and V.35, or E1 and V.35 and

RS232 and G.SHDSL, or other combinations. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to design such combination interfaces in a communication device.

- With regard claim 34, which is a communication device claim related to claim 4, all limitation is contained in claim 4. The explanation of all the limitation is already addressed in the above paragraph.

11. Claims 14, 15, 42, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dudziak et al. (US 6,470,032) in view of Shenoi (US 2003/0048802).

- With regard claim 14, Dudziak et al. discloses a method of operating a device, comprising:
  - recovering a master clock signal (Fig.5 elements 504, 506, 508, 510, and 512, column 2 element 3-37, and column 6 lines 1-67) from a first dataport (Fig.5 element 504);
  - deriving a synchronized clock signal from the master clock signal (Fig.5 element 510 outputs);
  - coupling the synchronized clock signal to a second dataport (Fig.5 element 512);
  - transceiving data on the first dataport (Fig.5 elements 502, 504, and column 6 line 11 – column 7 line 35); and
  - transceiving data synchronized to the master clock signal of the first dataport on the second dataport (Fig.5 elements 502, 504, and column 6 line 11 – column 7 line 35).

Dudziak et al. discloses all of the subject matter as described in the above paragraph except for specifically teaching wherein the operational device is a G.SHDSL device.

However, Shenoi teaches that the telecommunications device is a G.SHDSL device (Fig.5 element 540 and paragraphs 12, 13, 37-39, 44, and 45).

It is desirable that the telecommunications device is a G.SHDSL device. The reason for this is deploying G.shdsl in backhaul applications can be cost effective and advantageous for at least the following reasons. This permits DSL components, such as DSLAMs, to be utilized without the need to install, or lease, expensive DSL interconnections between a DSL component and a central office so as to improve quality and/or reduces costs compared to previous approaches (paragraph 125). Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the method as taught by Shenoi to substitute the first and second dataports to G.SHDSL data ports into Dudziaks' communication device circuit so as to improve quality and reduces costs.

- With regard claim 15, all limitation is contained in claim 14. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 42, which is a telecommunication device claim related to claim 14, all limitation is contained in claim 14. The explanation of all the limitation is already addressed in the above paragraph.

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- With regard claim 47, Dudziak et al. discloses all of the subject matter as described in the above paragraph except for specifically teaching wherein a total of the data transceiving capability per unit of time of the plurality of dataports matches a data transceiving capability per unit of time of the external network dataport.

However, Shenoï teaches wherein a total of the data transceiving capability per unit of time of the plurality of dataports matches a data transceiving capability per unit of time of the external network dataport. (Fig.2 and Fig.5, and paragraphs 35, 36, and 43-55).

It is desirable that wherein a total of the data transceiving capability per unit of time of the plurality of dataports matches a data transceiving capability per unit of time of the external network dataport in order to avoid cell loss (paragraph 54).

Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the method as taught by Shenoï in which, a total of the data transceiving capability per unit of time of the plurality of dataports matches a data transceiving capability per unit of time of the external network dataport, into Dudziaks' communication device so as to avoid cell loss.

12. Claims 16 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dudziak et al. (US 6,470,032) and Shenoï (US 2003/0048802) as applied to claim 14 above, and further in view of Liu et al. (US 6,631,436).

- With regard claim 16, Dudziak et al. and Shenoï discloses all of the subject matter as described in the above paragraph except for specifically teaching



wherein the first dataport is an E1 interface and the second dataport is a V.35 interface.

However, Liu et al. teaches wherein the first dataport is an E1 interface (Fig.9 element T1/E1) and the second dataport is a V.35 interface (Fig.9 element V.35 DEC).

It is desirable that the first dataport is an E1 interface and the second dataport is a V.35 interface in order to reduce the developing cost in the router/bridge and channel service unit/data service unit (column 2 lines 50-53). Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the method as taught by Liu et al. that recovers the clock from the input signal from E1 dataport and coupling the synchronized clock to V.35 data port of the Dudziak et al. and Shenois' device circuit so as to reduce the developing cost in the router/bridge and channel service unit/data service unit.

- With regard claim 43, which is a telecommunication device claim related to claim 16, all limitation is contained in claim 16. The explanation of all the limitation is already addressed in the above paragraph.

13. Claims 17-19 and 44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dudziak et al. (US 6,470,032) and Shenois (US 2003/0048802) as applied to claim 14 above, and further in view of Parrish (US 6,631,483).

- With regard claim 17, Dudziak et al. and Shenois discloses all of the subject matter as described in the above paragraph except for specifically teaching

wherein deriving the synchronized clock signal further comprises deriving a synchronized clock signal that is equal to the master clock signal divided by an integer value N.

However, Parrish teaches wherein deriving the synchronized clock signal further comprises deriving a synchronized clock signal that is equal to the master clock signal divided by an integer value N. (Fig.4 element 58a), where examiner considers that the N equals 1 (Fig.1 element 88).

It is desirable to derive the synchronized clock signal further comprises deriving a synchronized clock signal that is equal to the master clock signal divided by an integer value N in order to reduce the design complicity of the PLL circuit.

Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the method as taught by Parrish in which, deriving the synchronized clock signal further comprises deriving a synchronized clock signal that is equal to the master clock signal divided by an integer value N, into Dudziak et al. and Shenois' modified device circuit so as to reduce the design complicity of the PLL circuit.

- With regard claim 18, all limitation is contained in claim 17 with  $N=1$ . The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 19, Dudziak et al. and Shenois discloses all of the subject matter as described in the above paragraph except for specifically teaching wherein deriving the synchronized clock signal further comprises deriving the synchronized clock signal as a multiple of 64 kHz.

However, Parrish teaches wherein deriving the synchronized clock signal further comprises deriving the synchronized clock signal as a multiple of 64 KHz (Fig.4 element 58a, where 8 MHz is a multiple of 64 KHz).

It is desirable wherein deriving the synchronized clock signal further comprises deriving the synchronized clock signal as a multiple of 64 kHz in order to gain the advantage of easily communicated and synchronized to more standardized dataports. Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the method as taught by Parrish in which, wherein deriving the synchronized clock signal further comprises deriving the synchronized clock signal as a multiple of 64 kHz, into Dudziak et al. and Shenois' modified device circuit so as to gain the advantage of easily communicated and synchronized to more standardized dataports.

- With regard claim 44, which is a telecommunication device claim related to claim 17, all limitation is contained in claim 17. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 45, which is a telecommunication device claim related to claim 18, all limitation is contained in claim 18. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 46, which is a telecommunication device claim related to claim 19, all limitation is contained in claim 19. The explanation of all the limitation is already addressed in the above paragraph.

14. Claims 21, 22, and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parrish (US 6,631,483) in view of Langberg et al. (US 5,852,630).

- With regard claim 21, Parrish discloses all of the subject matter as described above in claim 1 except for the method written by a software program embodied in a computer-readable medium.

However, Langberg et al. teaches that the method and apparatus for a transceiver warm start activation procedure with precoding can be implemented in software stored in a computer-readable medium. The computer-readable medium is an electronic, magnetic, optical, or other physical device or means that can be contain or store a computer program for use by or in connection with a computer-related system or method (column 3, lines 51-65). One skilled in the art would have clearly recognized that the method of “Parrish” would have been implemented in a software. The implemented software would perform same function of the hardware for less expense, adaptability, and flexibility. Therefore, it would have been obvious to have used the software in “Parrish” as taught by Langberg et al. in order to reduce cost and improve the adaptability and flexibility of the communication system.

- With regard claim 22, all limitation is contained in claim 21. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 25, which is a machine-usable medium claim related to claims 5 and 21, all limitation is contained in claims 5 and 21. The explanation of all the limitation is already addressed in the above paragraph.

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- With regard claim 26, which is a machine-usable medium claim related to claims 6 and 21, all limitation is contained in claims 6 and 21. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 27, which is a machine-usable medium claim related to claims 7 and 21, all limitation is contained in claims 7 and 21. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 28, which is a machine-usable medium claim related to claims 8 and 21, all limitation is contained in claims 8 and 21. The explanation of all the limitation is already addressed in the above paragraph.

15. Claims 23, 29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parrish (US 6,631,483) and Shenoi (US 2003/0048802) as applied to claim 3 above, and further in view of Langberg et al. (US 5,852,630).

- With regard claim 23, Parrish and Shenoi disclose all of the subject matter as described above in claim 3 except for the method written by a software program embodied in a computer-readable medium.

However, Langberg et al. teaches that the method and apparatus for a transceiver warm start activation procedure with precoding can be implemented in software stored in a computer-readable medium. The computer-readable medium is an electronic, magnetic, optical, or other physical device or means that can be contain or store a computer program for use by or in connection with a computer-related system or method (column 3, lines 51-65). One skilled in the art would have clearly recognized that the method of “Parrish and Shenoi” would

have been implemented in a software. The implemented software would perform same function of the hardware for less expense, adaptability, and flexibility.

Therefore, it would have been obvious to have used the software in "Parrish and Shenoi" as taught by Langberg et al. in order to reduce cost and improve the adaptability and flexibility of the communication system.

- With regard claim 29, which is a machine-usable medium claim related to claims 9 and 28, all limitation is contained in claims 9 and 28. The explanation of all the limitation is already addressed in the above paragraph.

- With regard claim 30, which is a machine-usable medium claim related to claims 10 and 28, all limitation is contained in claims 10 and 28. The explanation of all the limitation is already addressed in the above paragraph.

16. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Parrish (US 6,631,483) and Pitsoulakis (2003/0035471) and Lanode Ltd. (RS232 interface converters, RS232 to V.35 Interface converter) as applied to claim 4 above, and further in view of Langberg et al. (US 5,852,630).

- With regard claim 24, Parrish and Pitsoulakis and Lanode Ltd. disclose all of the subject matter as described above in claim 4 except for the method written by a software program embodied in a computer-readable medium.

However, Langberg et al. teaches that the method and apparatus for a transceiver warm start activation procedure with precoding can be implemented in software stored in a computer-readable medium. The computer-readable medium is an electronic, magnetic, optical, or other physical device or means

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that can be contain or store a computer program for use by or in connection with a computer-related system or method (column 3, lines 51-65). One skilled in the art would have clearly recognized that the method of "Parrish and Pitsoulakis and Lanode Ltd." would have been implemented in a software. The implemented software would perform same function of the hardware for less expense, adaptability, and flexibility. Therefore, it would have been obvious to have used the software in "Parrish and Pitsoulakis and Lanode Ltd." as taught by Langberg et al. in order to reduce cost and improve the adaptability and flexibility of the communication system.

17. Claims 51 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dudziak et al. (US 6,470,032) and Shenoi (US 2003/0048802) as applied to claim 49 and 58 above, and further in view of Pitsoulakis (2003/0035471) and Lanode Ltd. (RS232 interface converters, RS232 to V.35 Interface converter).

- With regard claim 51, Dudziak et al. and Shenoi all of the subject matter as described in the above paragraph except for specifically teaching a G.SHDSL, a RS-232 interface, and a V.35 interface.

However, Pitsoulakis teaches that a G.SHDSL (paragraphs 57 and 75), and a RS-232 interface (Fig.9 element 922) for a transmission device (Fig.9).

It is desirable to have a G.SHDSL interface and a RS-232 interface in order to reduce the design complicity due to non-standard interface. Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the method as taught by Pitsoulakis in which, having a

G.SHDSL, and a RS-232 interface, for a transmission device, into Dudziak et al. and Shenois' operational communication device so as to reduce the design complicity due to non-standard interface.

Dudziak et al. and Shenois and Pitsoulakis disclose all of the subject matter as described in the above paragraph except for specifically teaching a V.35 interface. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to use a RS232 to V.35 Interface converter at RS232 interface port as shown by Lanode Ltd. (RS232 interface converters, RS232 to V.35 Interface converter) in order to communicate with other V.35 interface transmission device since it was known in the art that reduce the device design complicity and device cost.

- With regard claim 60, which is a G.SHDSL communication device claim related to claims 58 and 34, all limitation is contained in claims 58 and 34. The explanation of all the limitation is already addressed in the above paragraph.

### ***Conclusion***

18. Reference(s) US 6,240,274 and US 6,078,595 are cited because they are put pertinent to the clock recovery and generation. However, none of references teach detailed connection as recited in claim.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted M. Wang whose telephone number is 571-272-3053. The examiner can normally be reached on M-F, 7:30 AM to 5:00 PM.



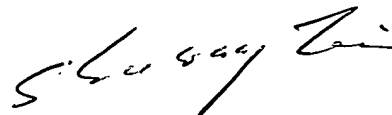
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ted M Wang  
Examiner  
Art Unit 2634

Ted M. Wang

A handwritten signature in black ink, appearing to read 'Shuwang Liu', written in a cursive style.

**SHUWANG LIU**  
**PRIMARY EXAMINER**